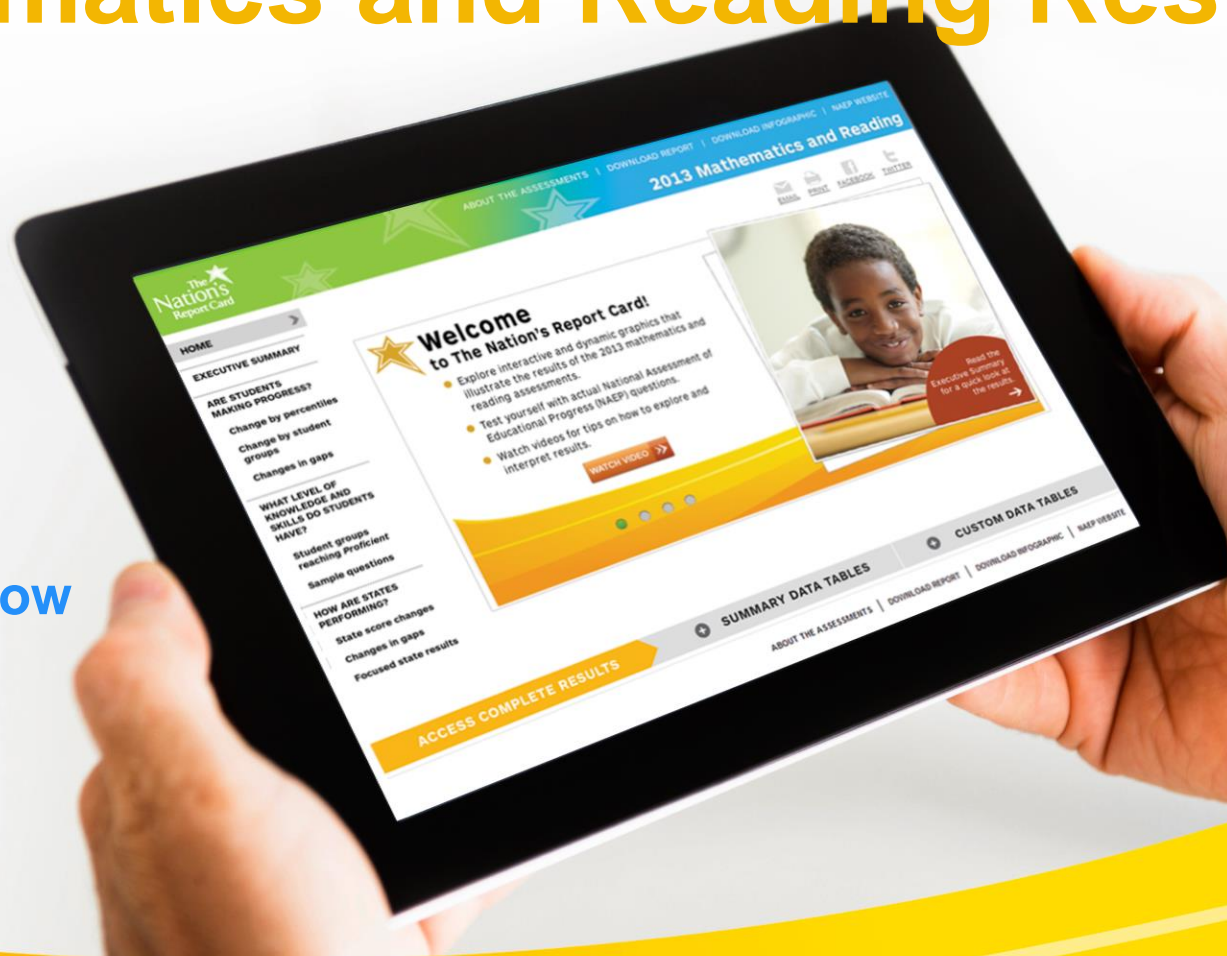


2013 NAEP Mathematics and Reading Results

Dr. Shelly Pollnow
Director AZ NAEP
December, 2013



NAEP 2013 Grade 4 and Grade 8

The Purpose of NAEP

**(The National Assessment of Educational Progress) or
The Nation's Report Card**

- **Measure student performance nationally and report changes over time**
 - **Provide results for the nation**
 - **Allow comparisons from individual states to the nation**
 - **Policymakers use NAEP results along with state test results and other indicators to help them evaluate current policies and consider policy changes to improve student achievement in AZ schools**
- (Low Stakes-There are no Arizona district/charter, school, or student level results)**

About the 2013 Assessments

Administered January – March 2013

National Samples:

- 377,000 fourth-graders
- 342,000 eighth-graders

Results available for:

- Nation
- 50 states, the District of Columbia, and the Department of Defense school system

About the 2013 Assessments

Administered January – March 2013

Arizona Samples:

- 6,200 fourth-graders
- 4,500 eighth-graders

Schools: 277

Performance reported as:

- Average scale scores (0–500 scale)
- Achievement levels (*Basic, Proficient, Advanced*)

MATHEMATICS



Arizona Mathematics

4th Grade

Arizona Grade 4 students continued to show dramatic growth – increasing 5 scale score points as they did in 2011.

Arizona 4th grade students scored significantly higher in 2013 with a score of (240) up from (235) in 2011.

This brings Arizona 4th grade math scores overall up to the national average (not statistically different AZ 240 vs. National 241)

Arizona Mathematics

8th Grade

Although AZ Grade 8 math students' results remained unchanged since 2011, AZ math students maintained their significant gains made in 2011.

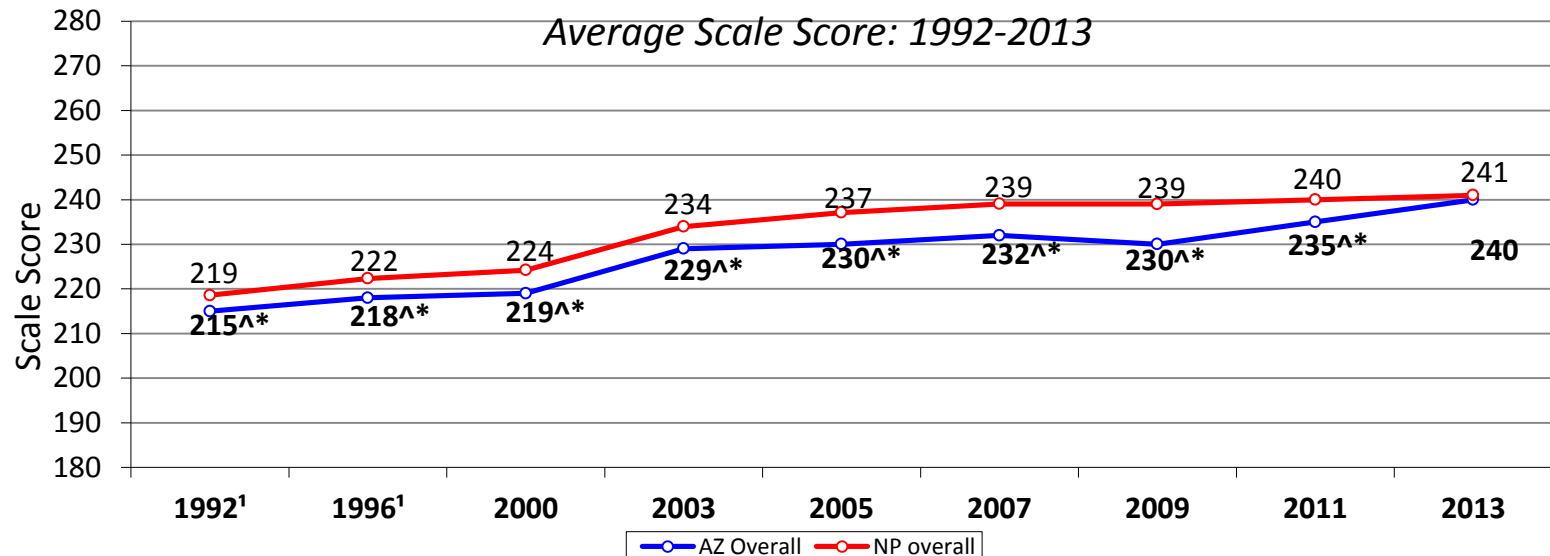
AZ Grade 8 African American, Hispanic, White, and Asian students scored at the national average for their peer group.

Arizona 8th grade Native American students mathematics score although showing a numerical increase was not significantly higher in 2013 (259) and was the same score of Native American students in 2005. Arizona Native American 8th grade students scored lower (259) than their peers nationally (270).

Arizona Mathematics Overall

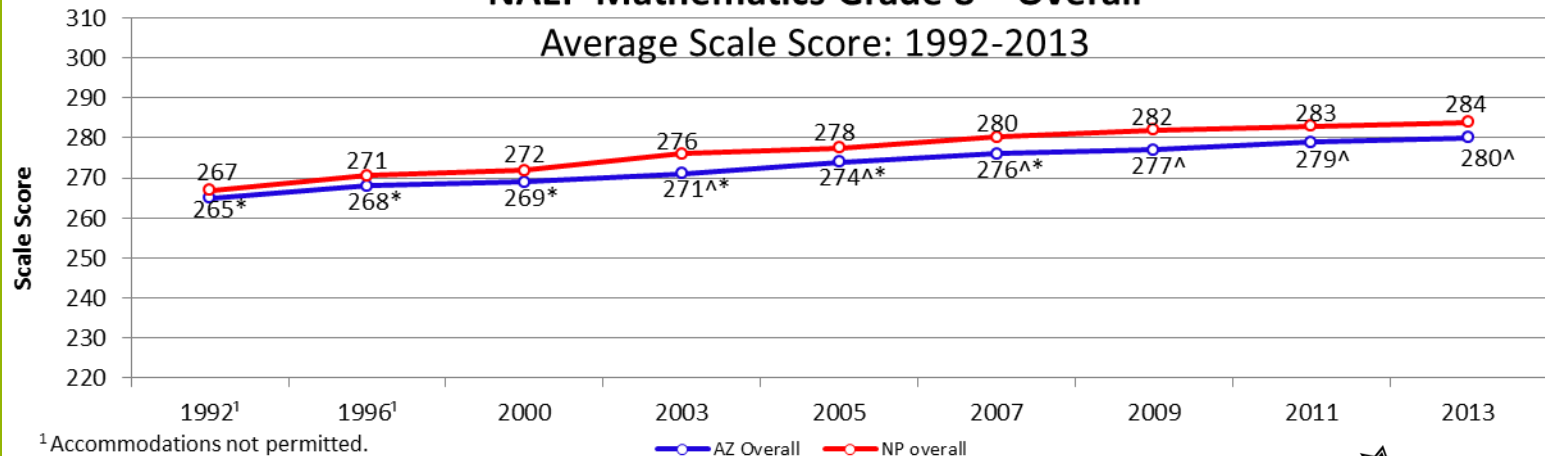
NAEP Mathematics Grade 4 – Overall

4th Grade



NAEP Mathematics Grade 8 – Overall

8th Grade

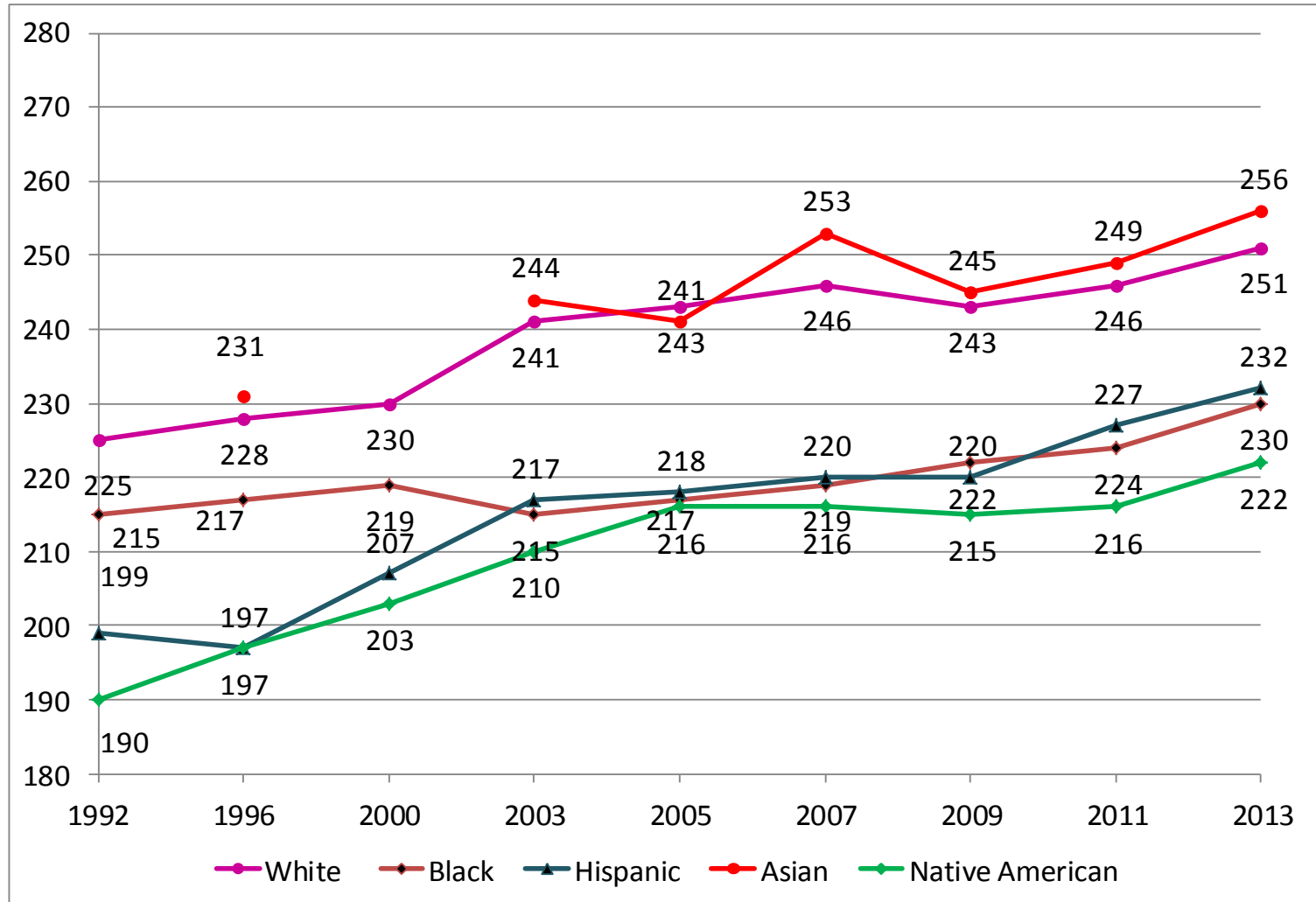


* Significantly different ($p < .05$) from AZ 2013.

[^] Significantly different ($p < .05$) from National 2013

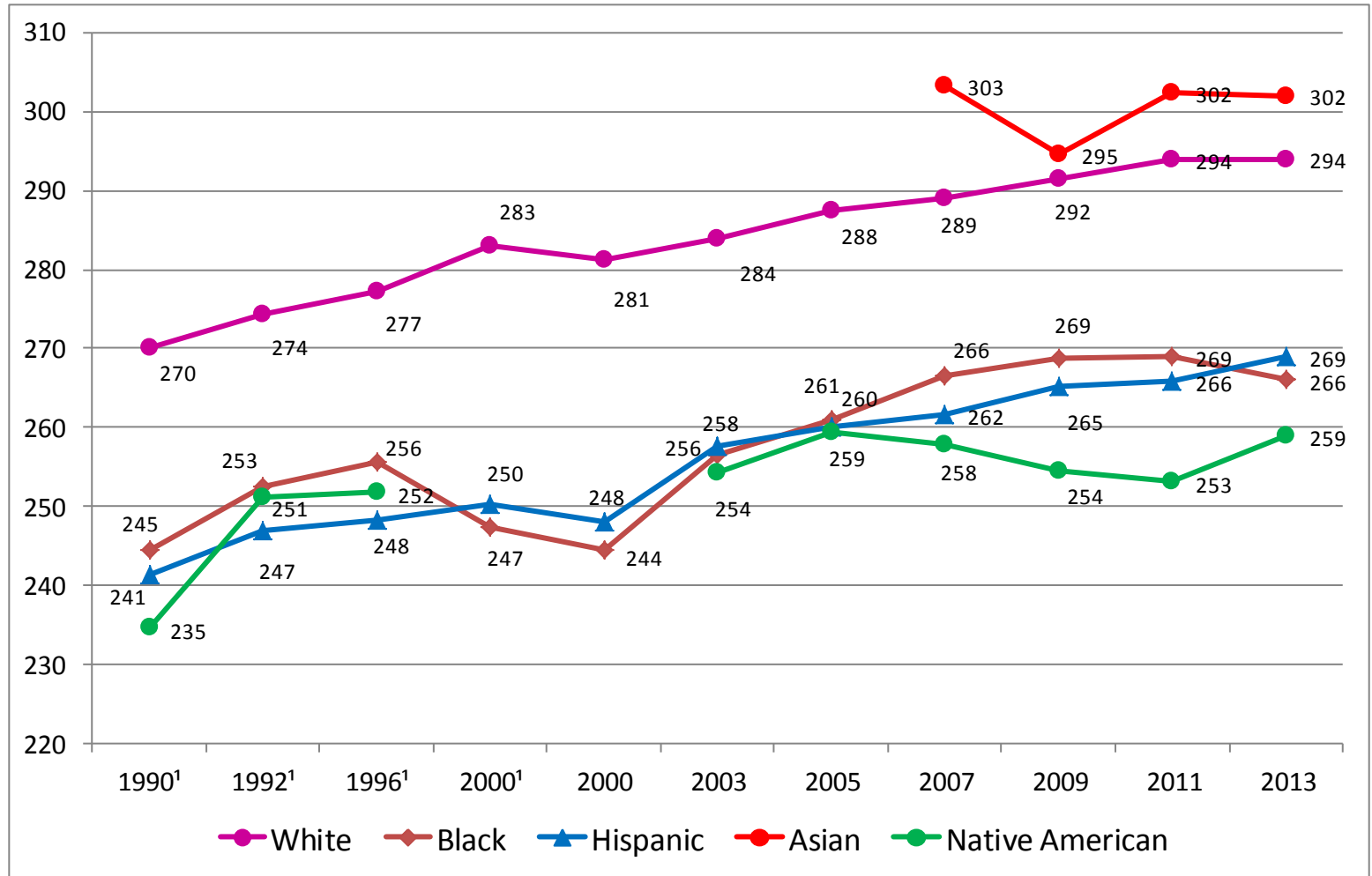
Arizona 4th Grade Mathematics Race/Ethnicity

4th Grade



Arizona Grade 8 Mathematics Race/Ethnicity

8th Grade



Arizona Mathematics Score Gaps (note 4th and 8th grade are on different scales)

NAEP 2013	4 th MATH	8 th MATH
White	251*	294*
Black	230*	266*
Hispanic	232*	269*
Asian	256	302
Native American	222*	259*

The performance gaps for African American students and Hispanic students have not significantly changed since 1992.

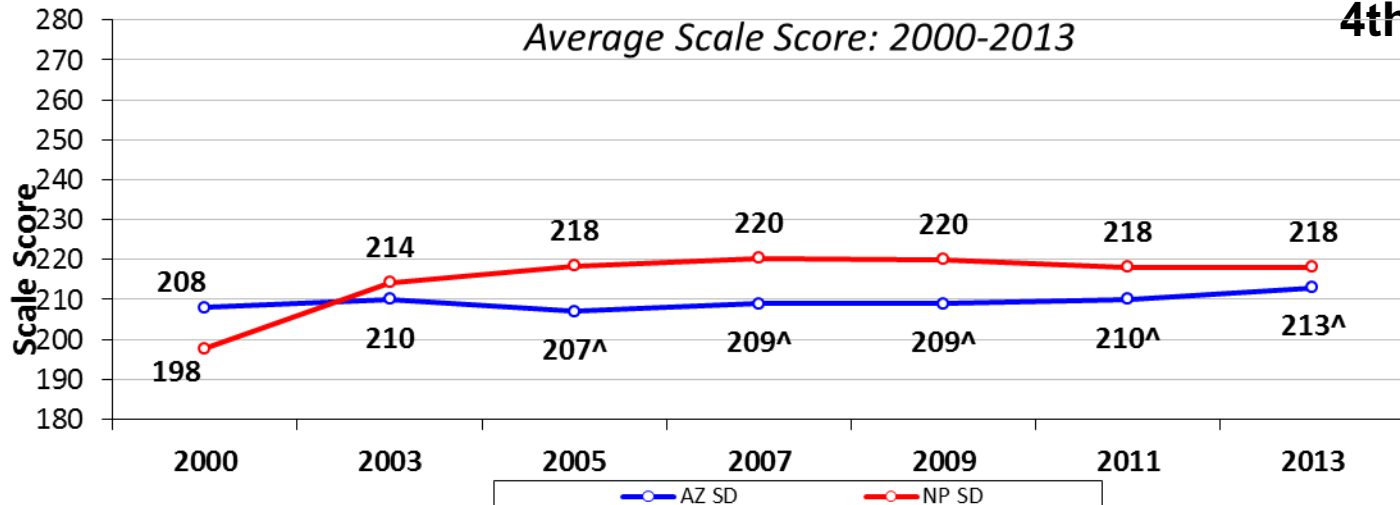
In 2013, Grade 8 Black students had an average score that was 28 points lower than White students. This performance gap was not significantly different from that in 1990 (26 points).

* Significantly different at $p < 0.05$

Arizona Mathematics Students with Disabilities

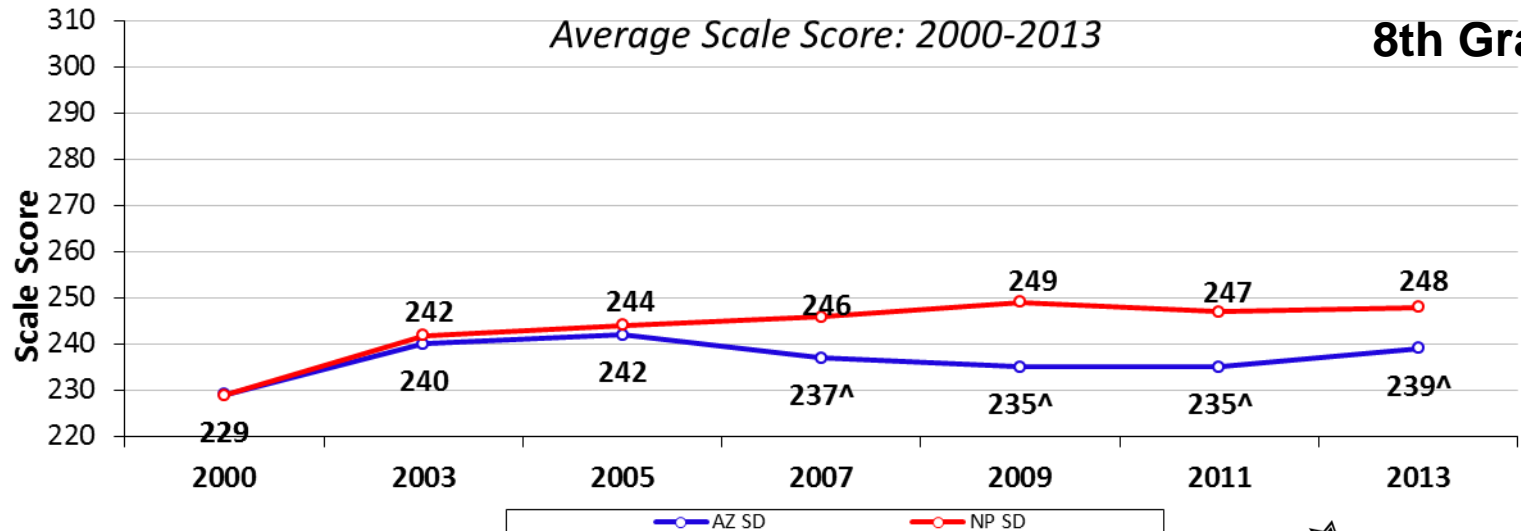
NAEP Mathematics Grade 4 – Students with Disabilities

4th Grade



NAEP Mathematics Grade 8 – Students with Disabilities

8th Grade

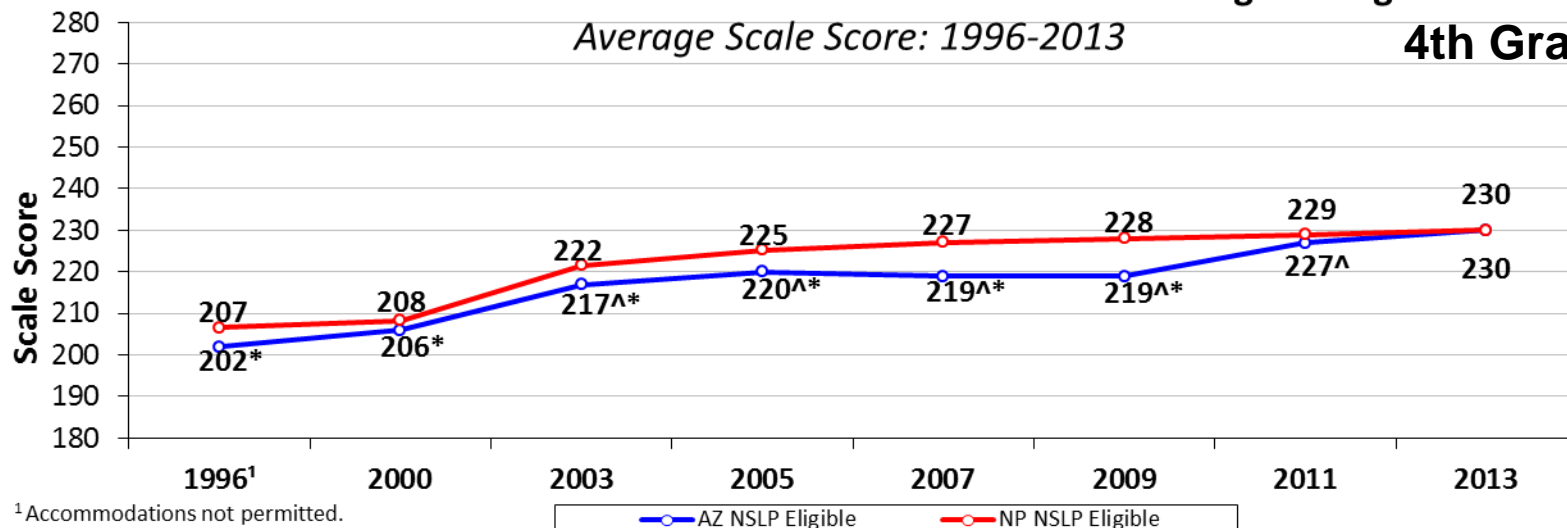


AZ Mathematics Students Eligible School Lunch

NAEP Mathematics Grade 4 – National School Lunch Program Eligible

Average Scale Score: 1996-2013

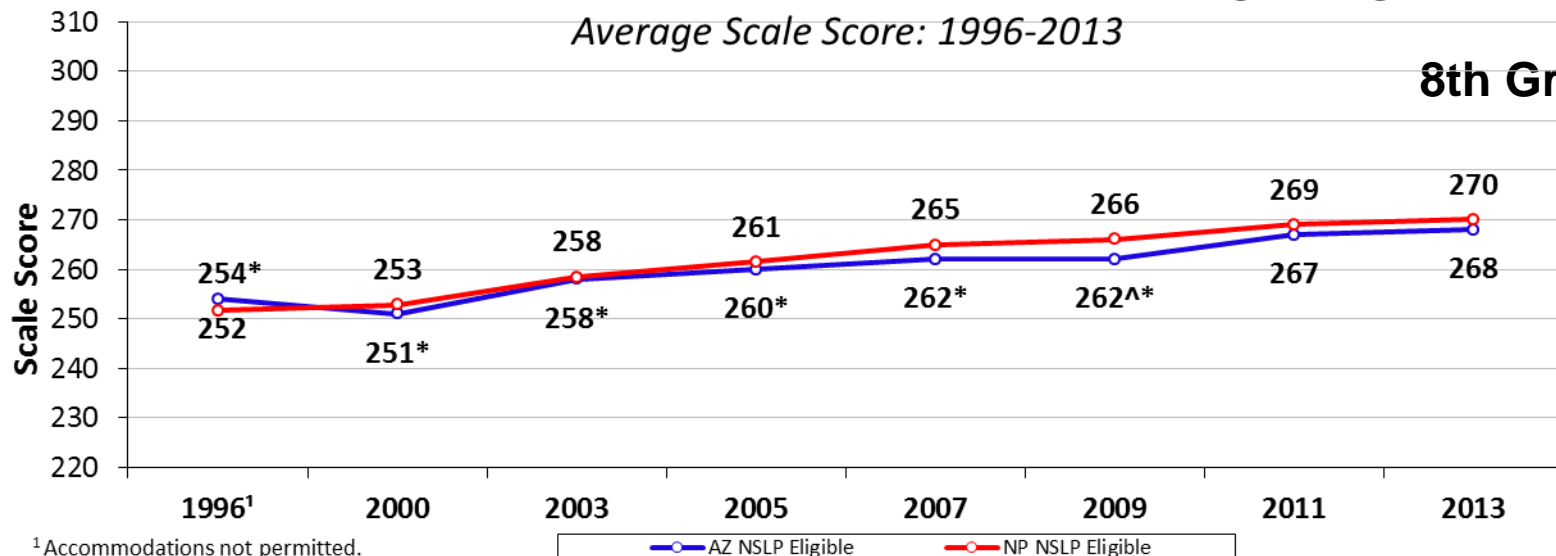
4th Grade



NAEP Mathematics Grade 8 – National School Lunch Program Eligible

Average Scale Score: 1996-2013

8th Grade

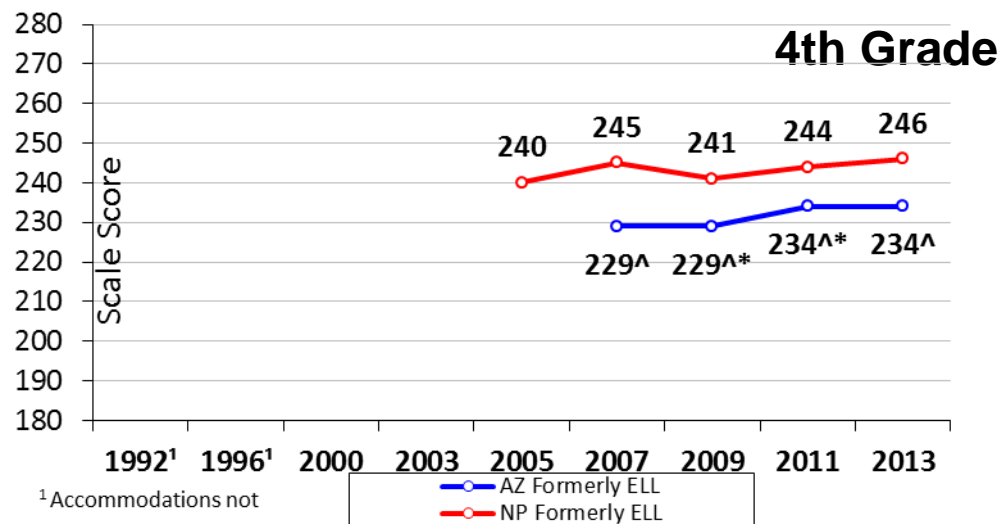


* Significantly different ($p < .05$) from AZ 2013.

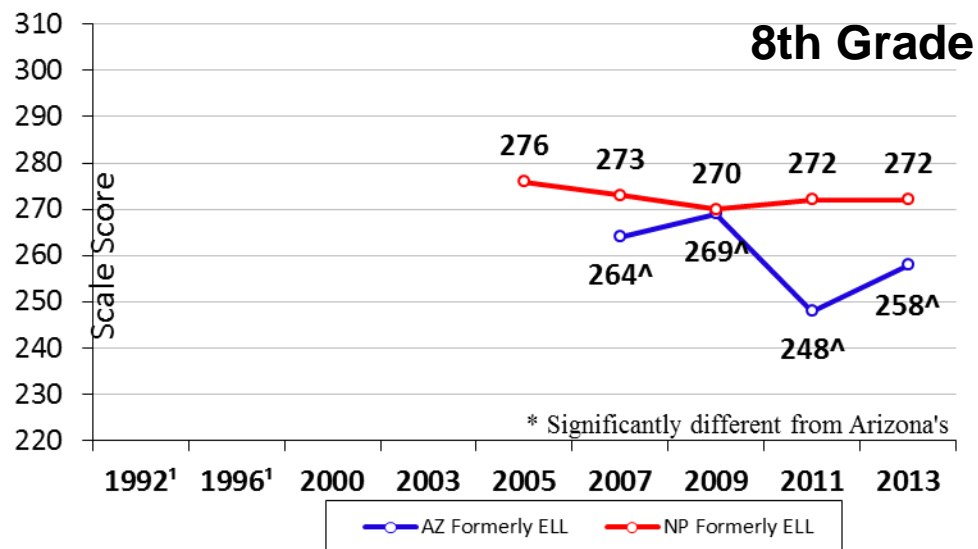
[^] Significantly different ($p < .05$) from National 2013

AZ Mathematics Students Formerly ELL

Grade 4 2013	AZ %	NP % Nat'l pub percent
ELL	7 [^]	11
Non-ELL	88	86
Formerly ELL	5 [^]	3

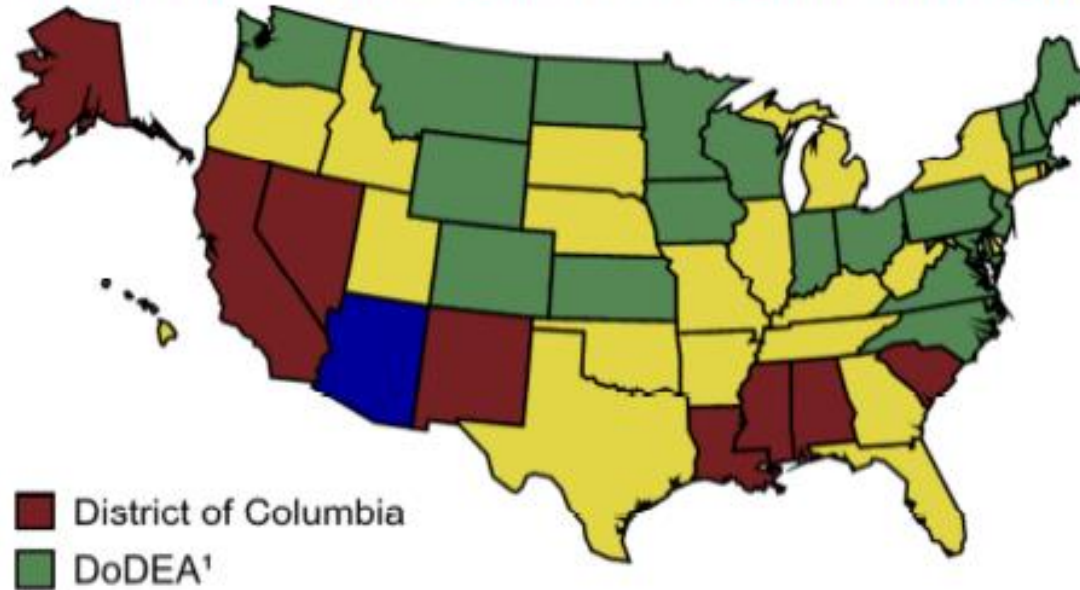


Grade 8 2013	AZ %	NP % Nat'l Public Percent
ELL	1 [^]	5
Non-ELL	96 [^]	92
Formerly ELL	3	3



4th Grade Mathematics State Comparison

Compare the Average Score in 2013 to Other States/Jurisdictions



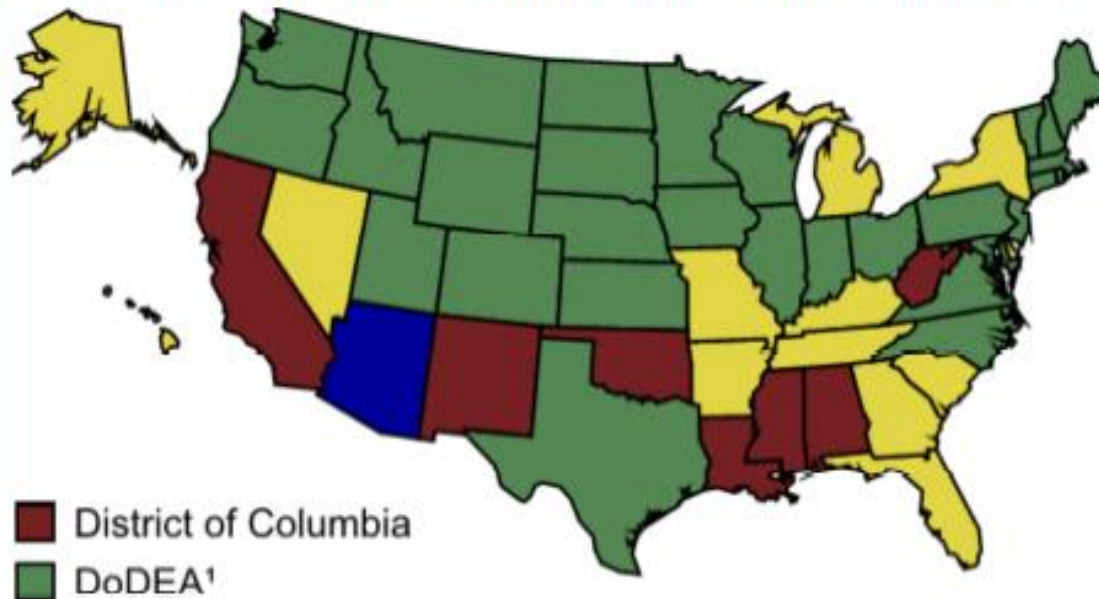
¹ Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (240) was

- lower than those in 21 states/jurisdictions
- higher than those in 9 states/jurisdictions
- not significantly different from those in 21 states/jurisdictions

8th Grade Mathematics State Comparison

Compare the Average Score in 2013 to Other States/Jurisdictions



¹ Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (280) was

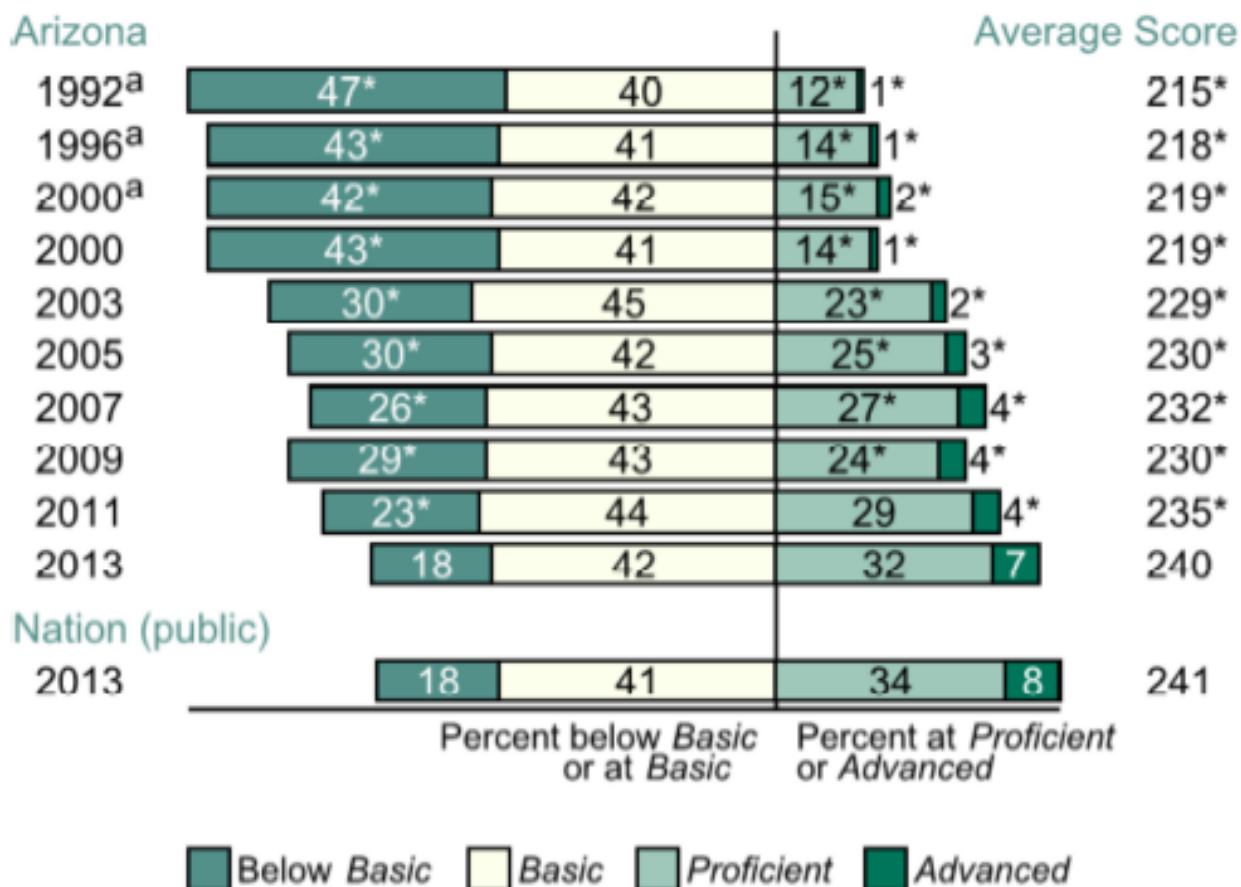
lower than those in 30 states/jurisdictions

higher than those in 8 states/jurisdictions

not significantly different from those in 13 states/jurisdictions

4th Grade Mathematics Achievement Levels

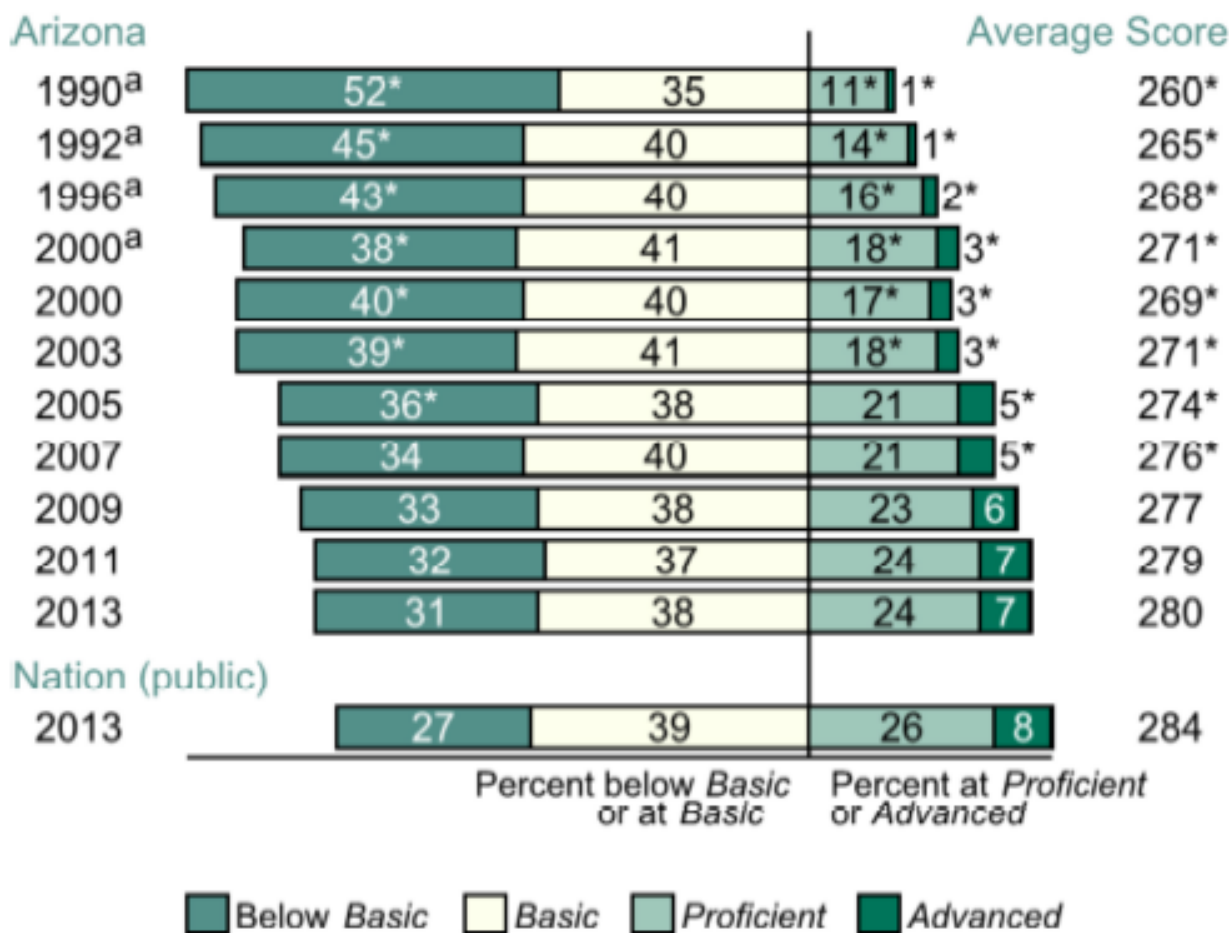
Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2013. Significance tests were performed using unrounded numbers.

8th Grade Mathematics Achievement Levels

Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2013. Significance tests were performed using unrounded numbers.

READING



- **Arizona Grade 4 students scored higher in 2013 (213) than in 2003 (209).**
- **Arizona Grade 4 reading results remain unchanged since 2011.**
- **Our African American, White, and Asian students scored at the national average for their peer groups.**

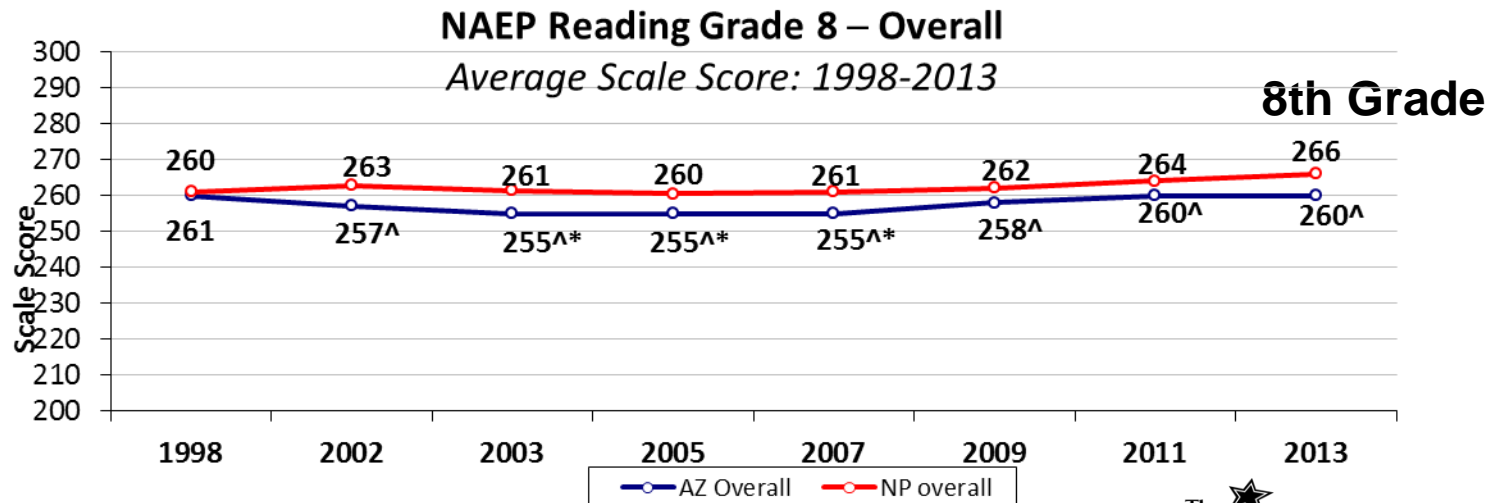
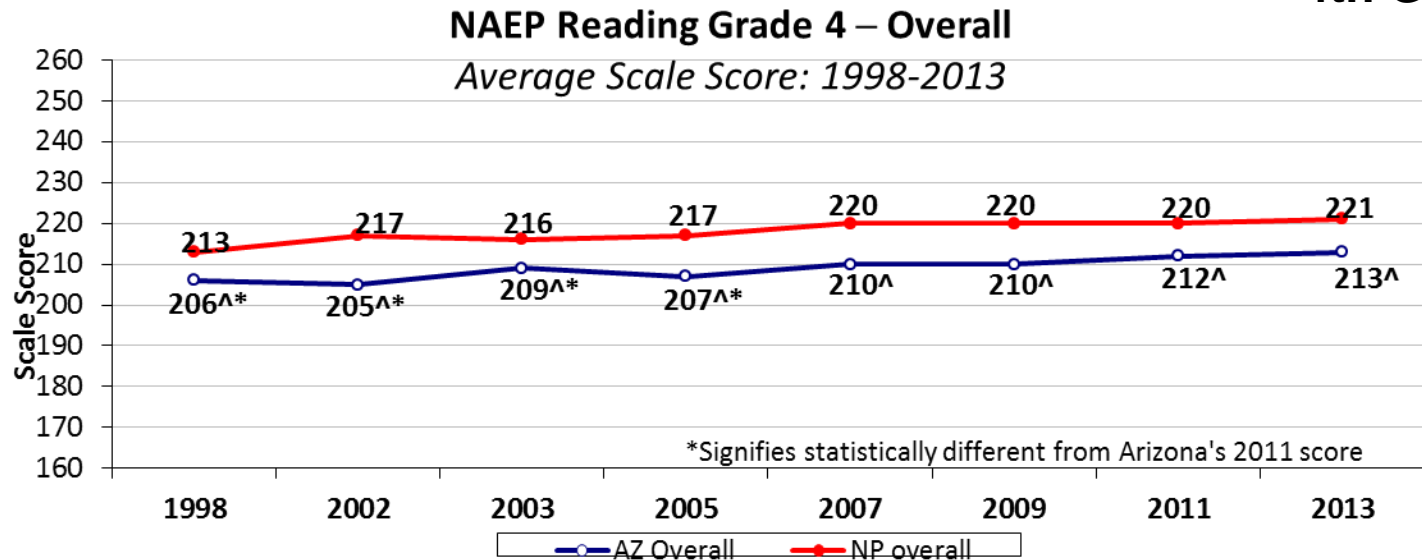
Arizona Reading

8th Grade

- **Arizona's Grade 8 students scored significantly higher in 2013 (260) than in 2007 (255).**
- **Arizona Grade 8 reading score (260) for 2013 remained unchanged from 2011**
- **Arizona's White, Asian, and African American students scored at the national average for their peer groups.**

Arizona Reading Overall

4th Grade

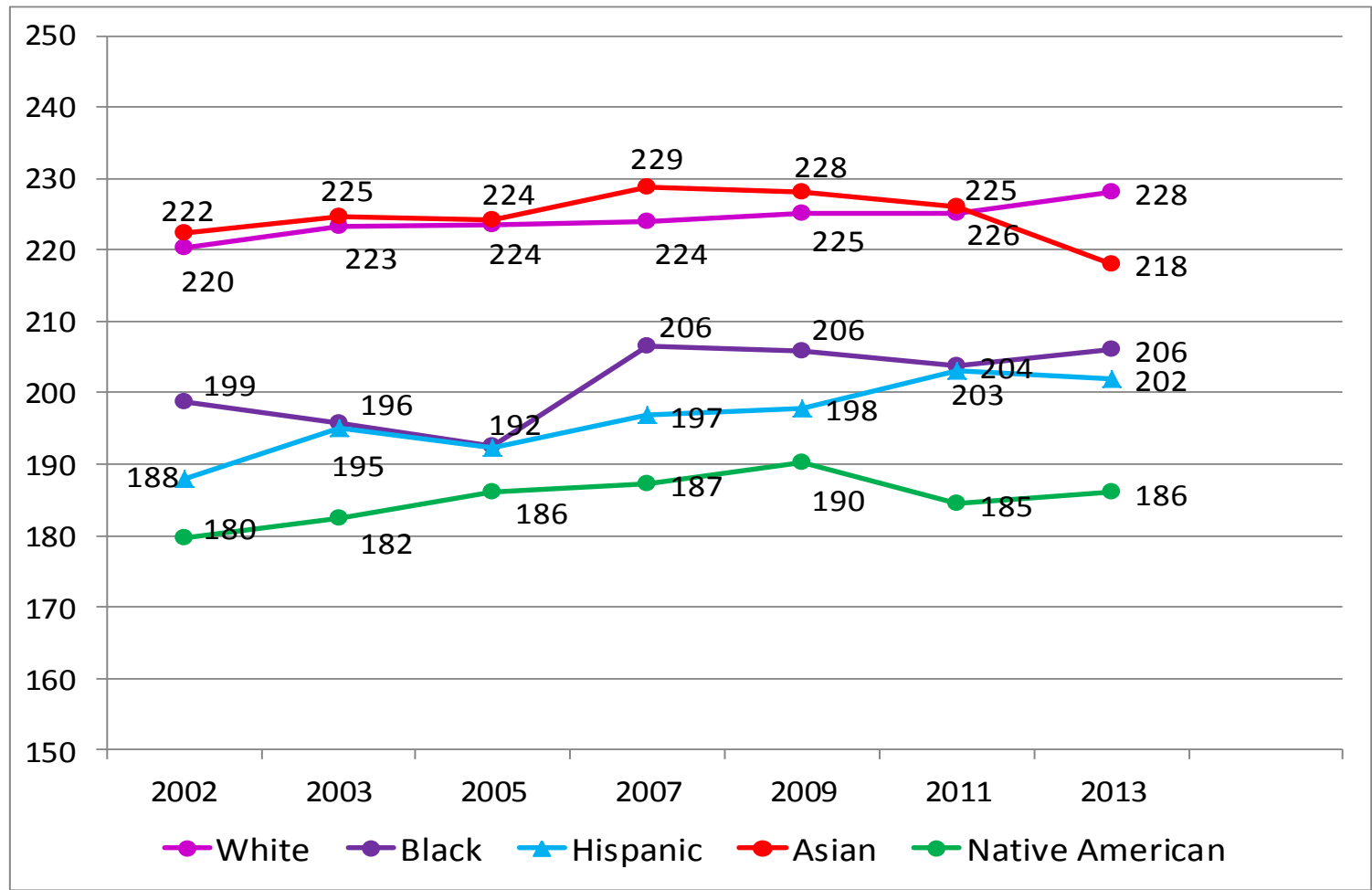


* Significantly different ($p < .05$) from AZ 2013.

[^] Significantly different ($p < .05$) from National 2013

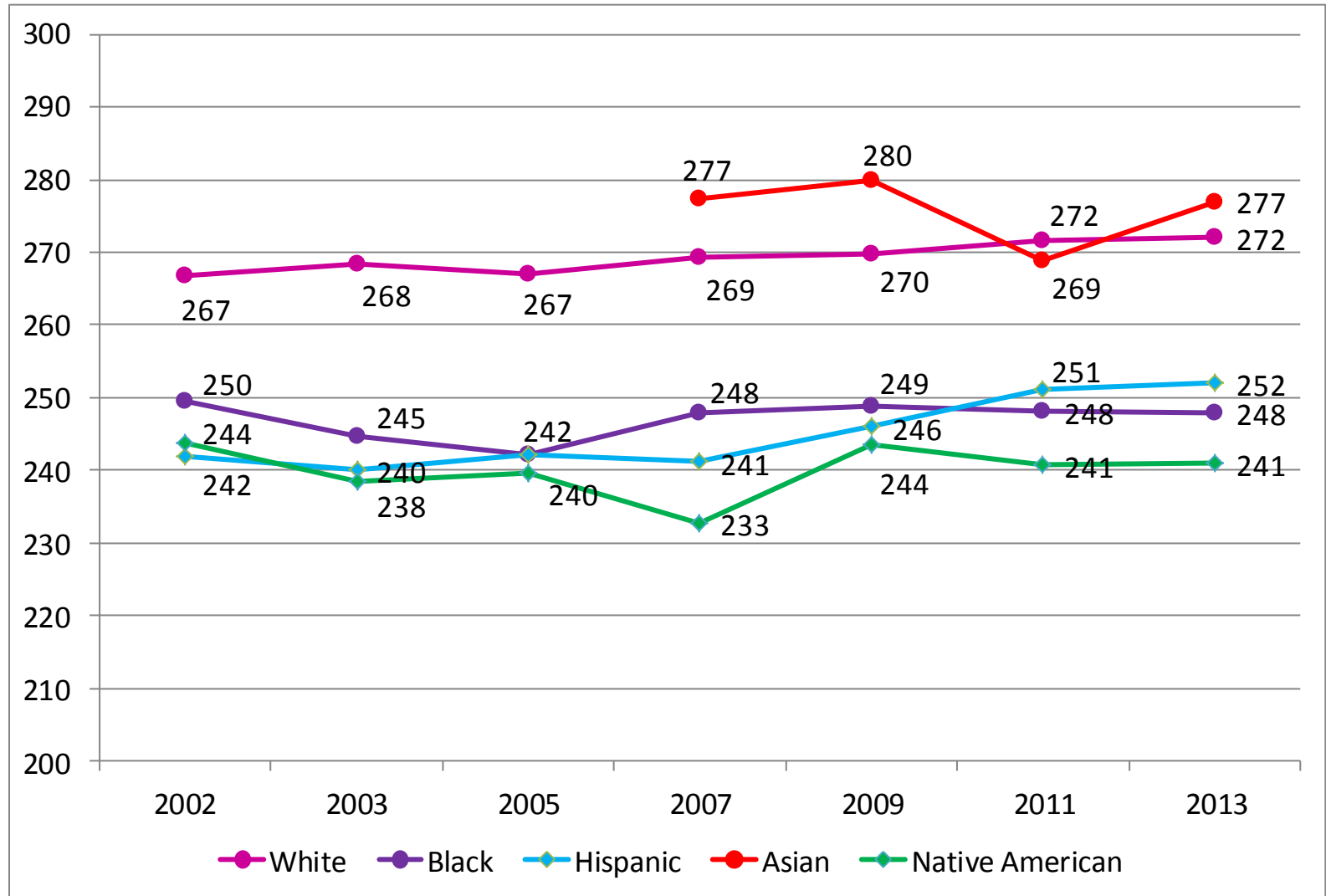
Arizona Reading 4th Grade Race/Ethnicity

4th Grade



Arizona Reading 8th Grade Race/Ethnicity

8th Grade



Arizona Reading Gaps

NAEP 2013	4 th Reading	8 th Reading
White	228*	294*
Black	206*	248*
Hispanic	202*	252*
Asian	218	277
Native American	186*	241*

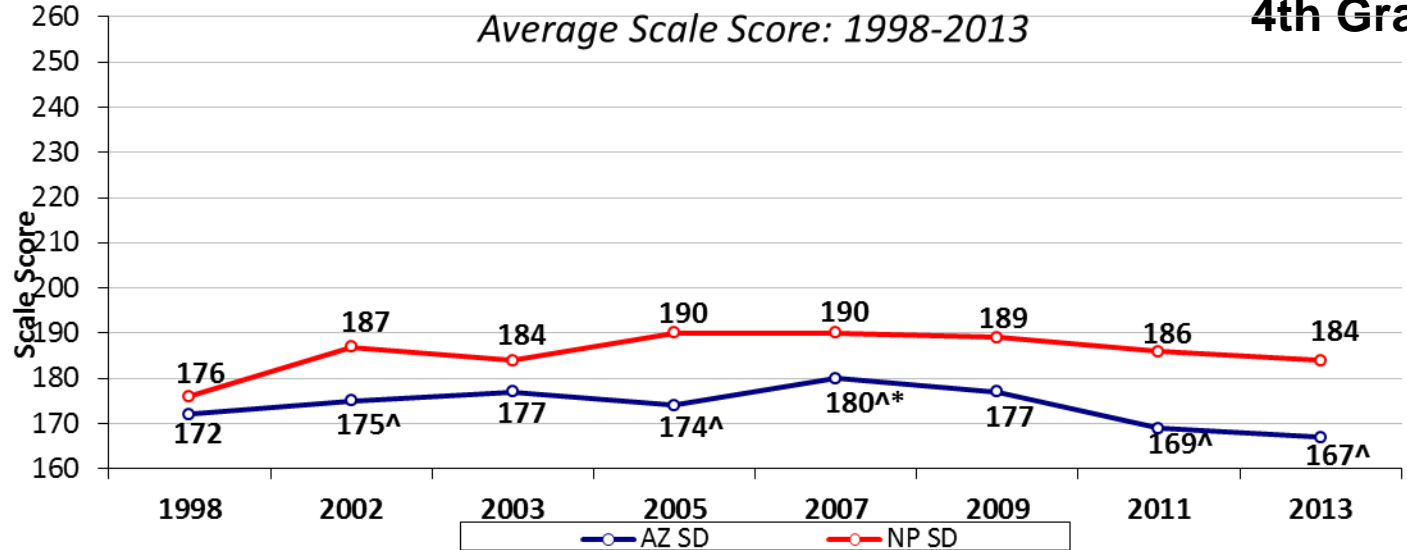
Score gaps are not statistically different from score gaps since the 1990s for both 4th and 8th Grade Reading NAEP 2013.

* Significantly different at $p < 0.05$

Reading Students with Disabilities

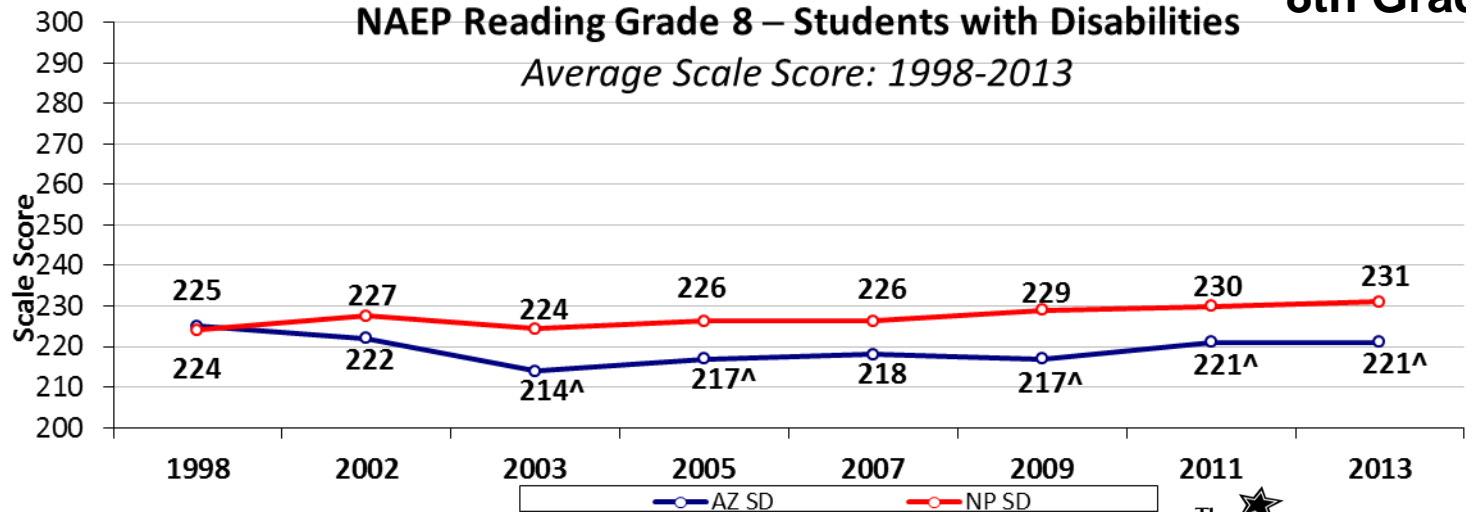
NAEP Reading Grade 4 – Students with Disabilities

4th Grade



NAEP Reading Grade 8 – Students with Disabilities

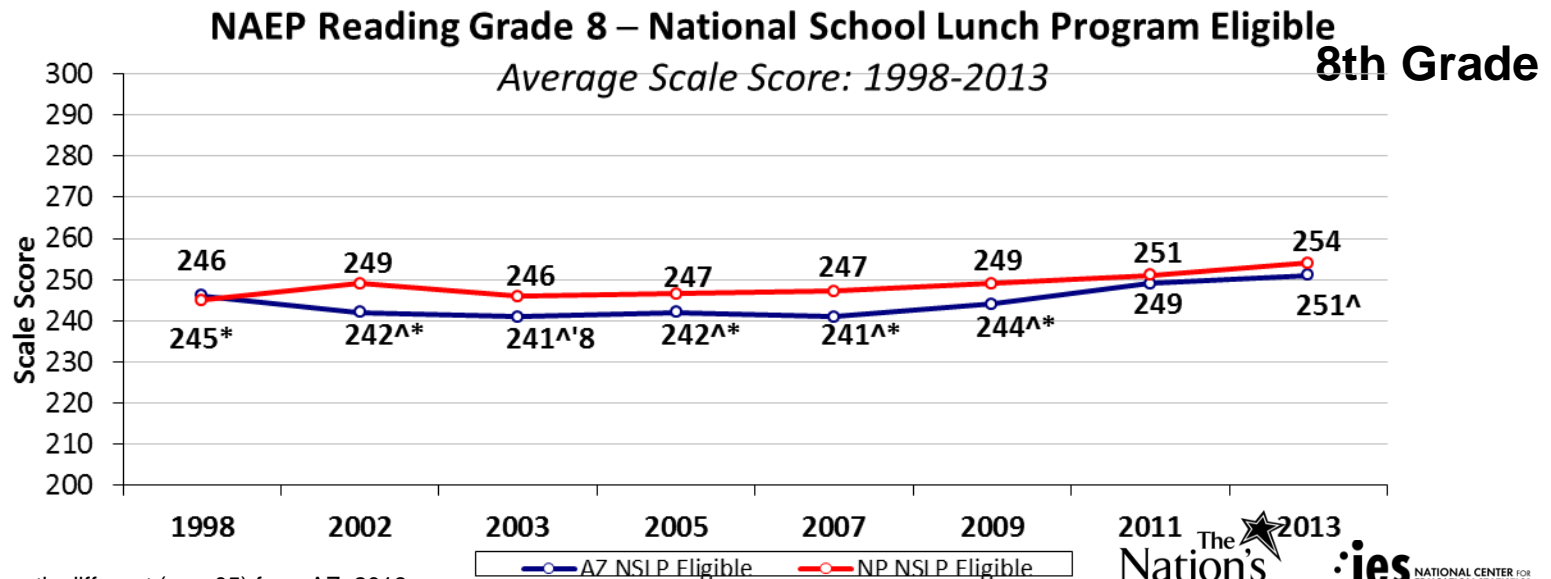
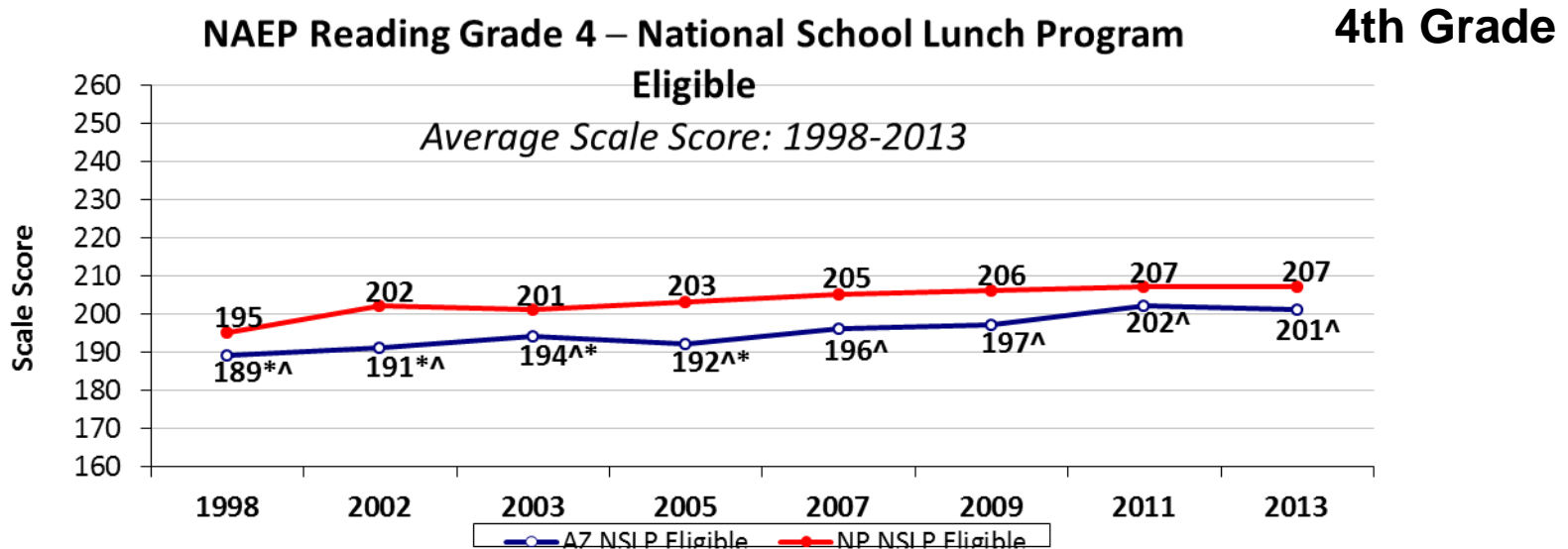
8th Grade



* Significantly different ($p < .05$) from AZ 2013.

[^] Significantly different ($p < .05$) from National 2013

Reading Students Eligible for School Lunch



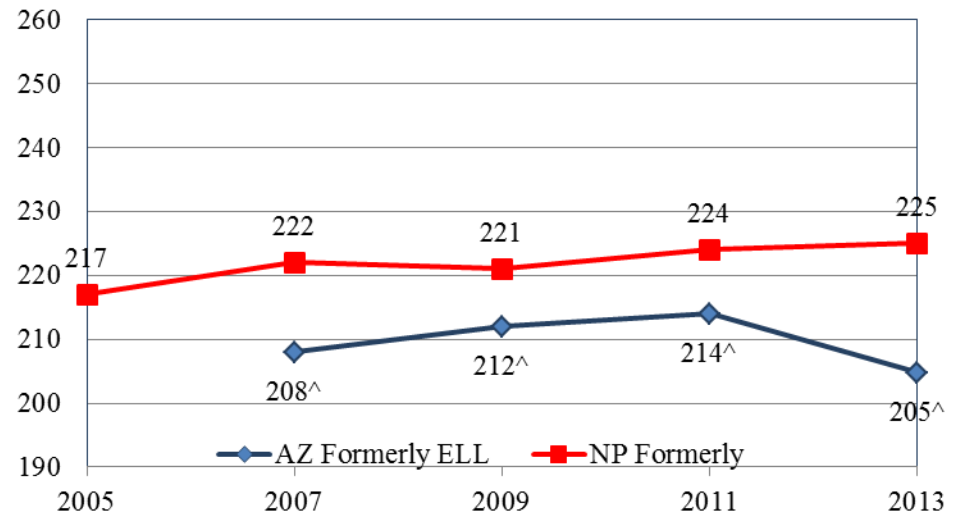
* Significantly different ($p < .05$) from AZ 2013.

[^] Significantly different ($p < .05$) from National 2013

Reading Formerly ELL

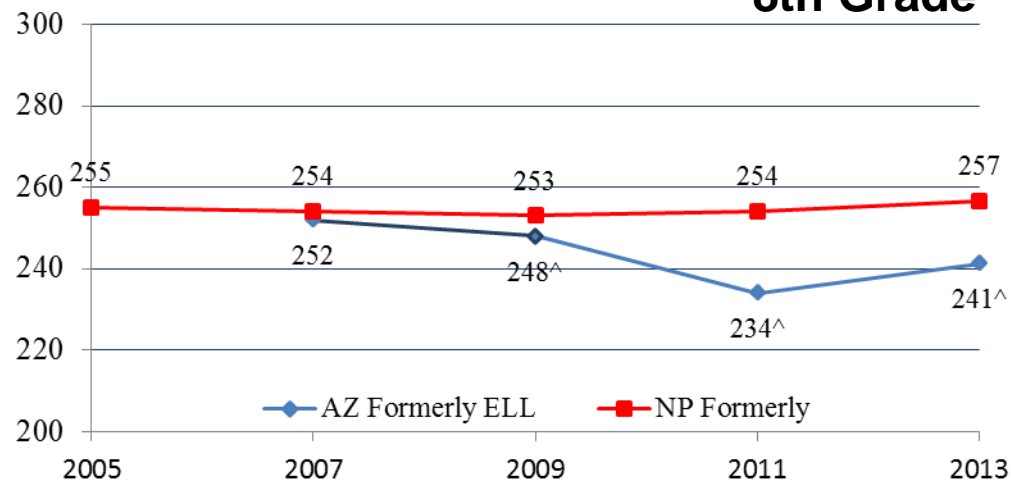
4th Grade

Grade 4 2013	AZ %	NP % Nat'l pub percent
ELL	7 [^]	10
Non-ELL	88	87
Formerly ELL	6 [^]	3



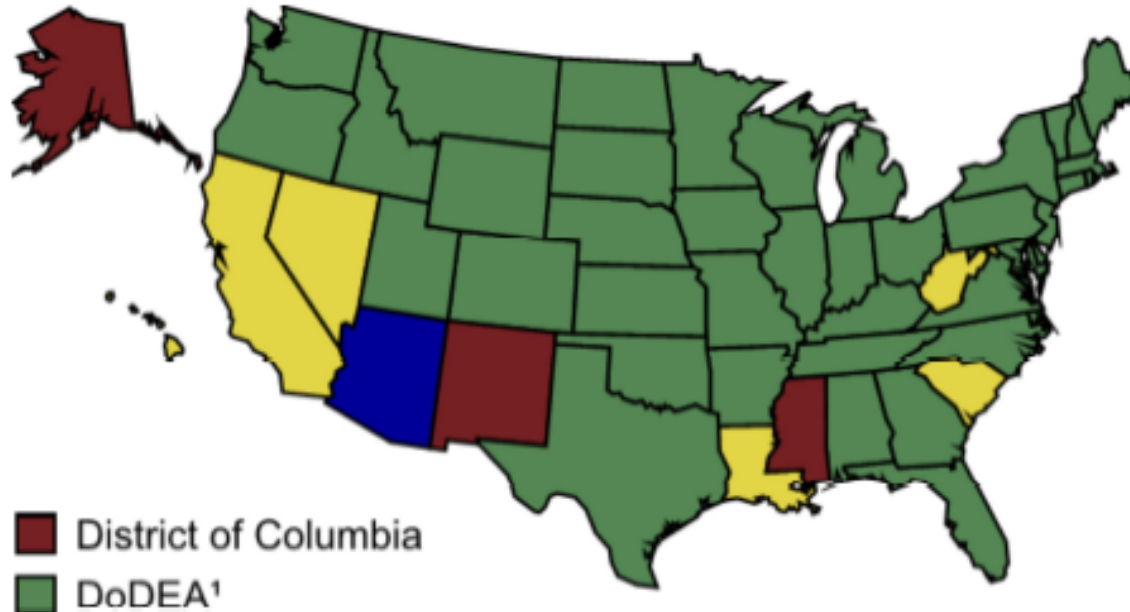
Grade 8 2013	AZ %	NP % Nat'l pub percent
ELL	1 [^]	5
Non-ELL	96	92
Formerly ELL	3	3

8th Grade



4th Grade Reading NAEP 2013

Compare the Average Score in 2013 to Other States/Jurisdictions



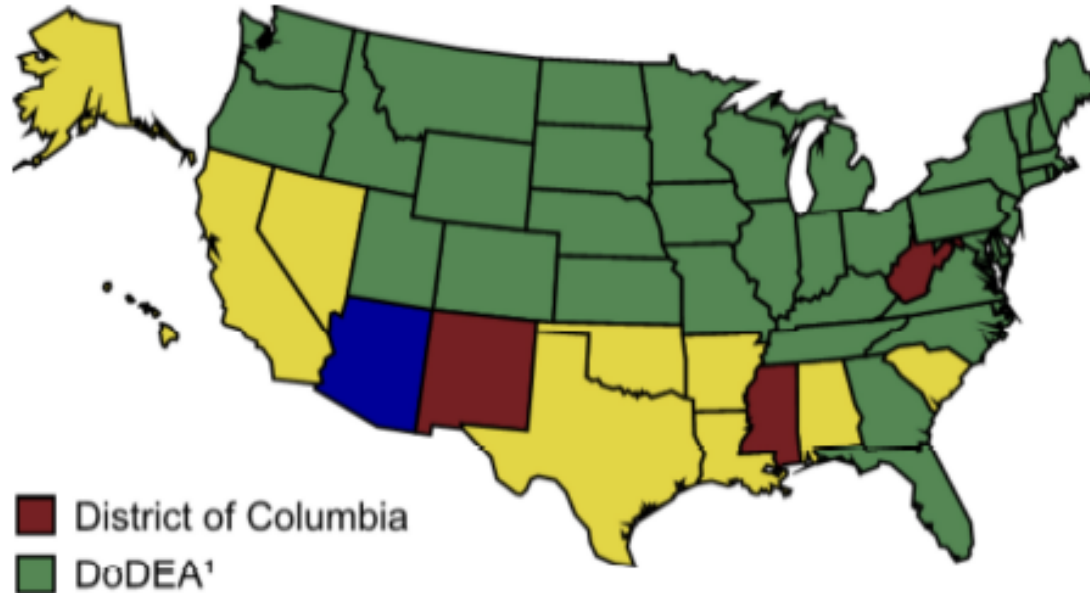
¹ Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (213) was

- lower than those in 41 states/jurisdictions
- higher than those in 4 states/jurisdictions
- not significantly different from those in 6 states/jurisdictions

8th Grade Reading NAEP 2013

Compare the Average Score in 2013 to Other States/Jurisdictions



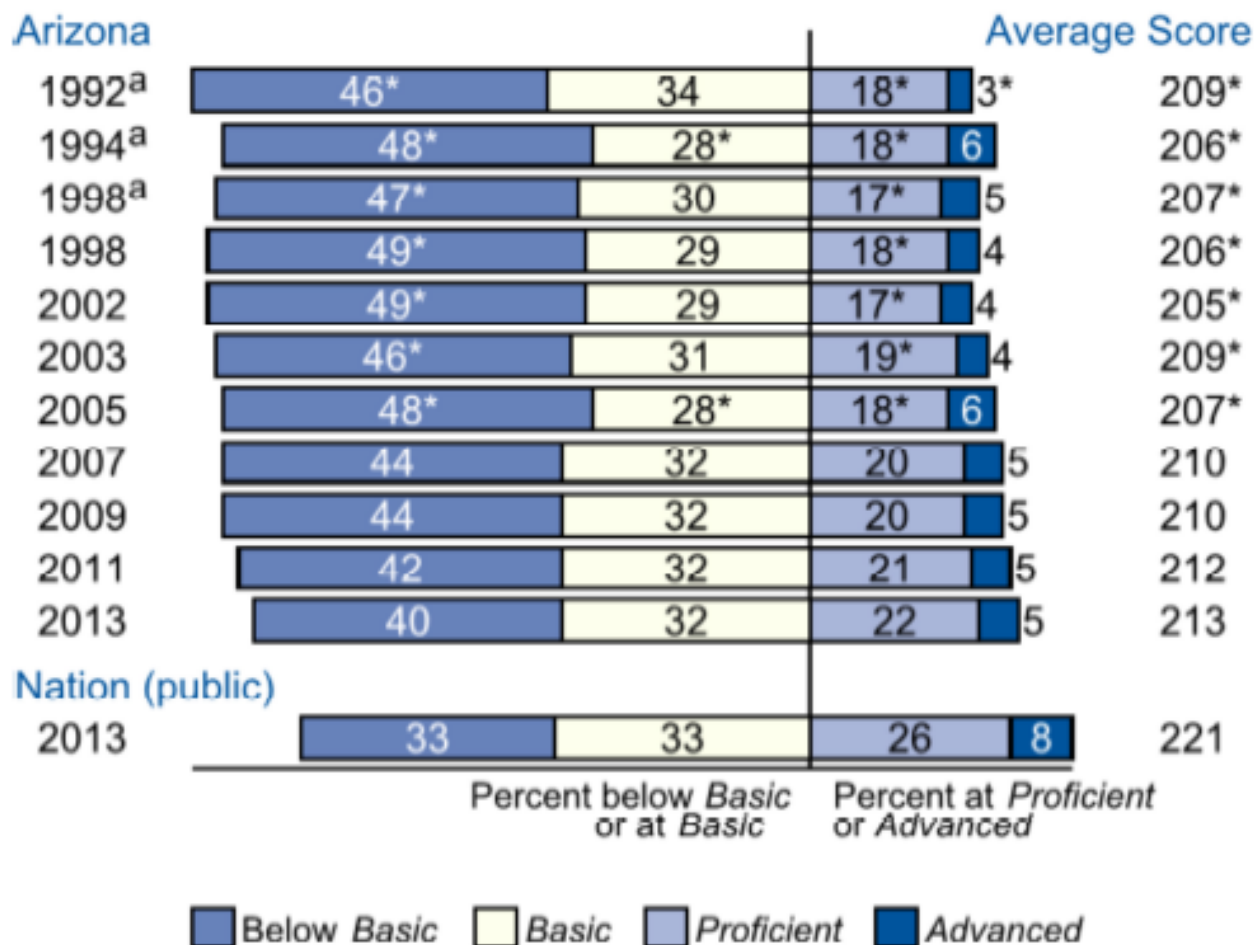
¹ Department of Defense Education Activity (overseas and domestic schools).

In 2013, the average score in **Arizona** (260) was

- lower than those in 37 states/jurisdictions
- higher than those in 4 states/jurisdictions
- not significantly different from those in 10 states/jurisdictions

4th Grade Reading Achievement Levels

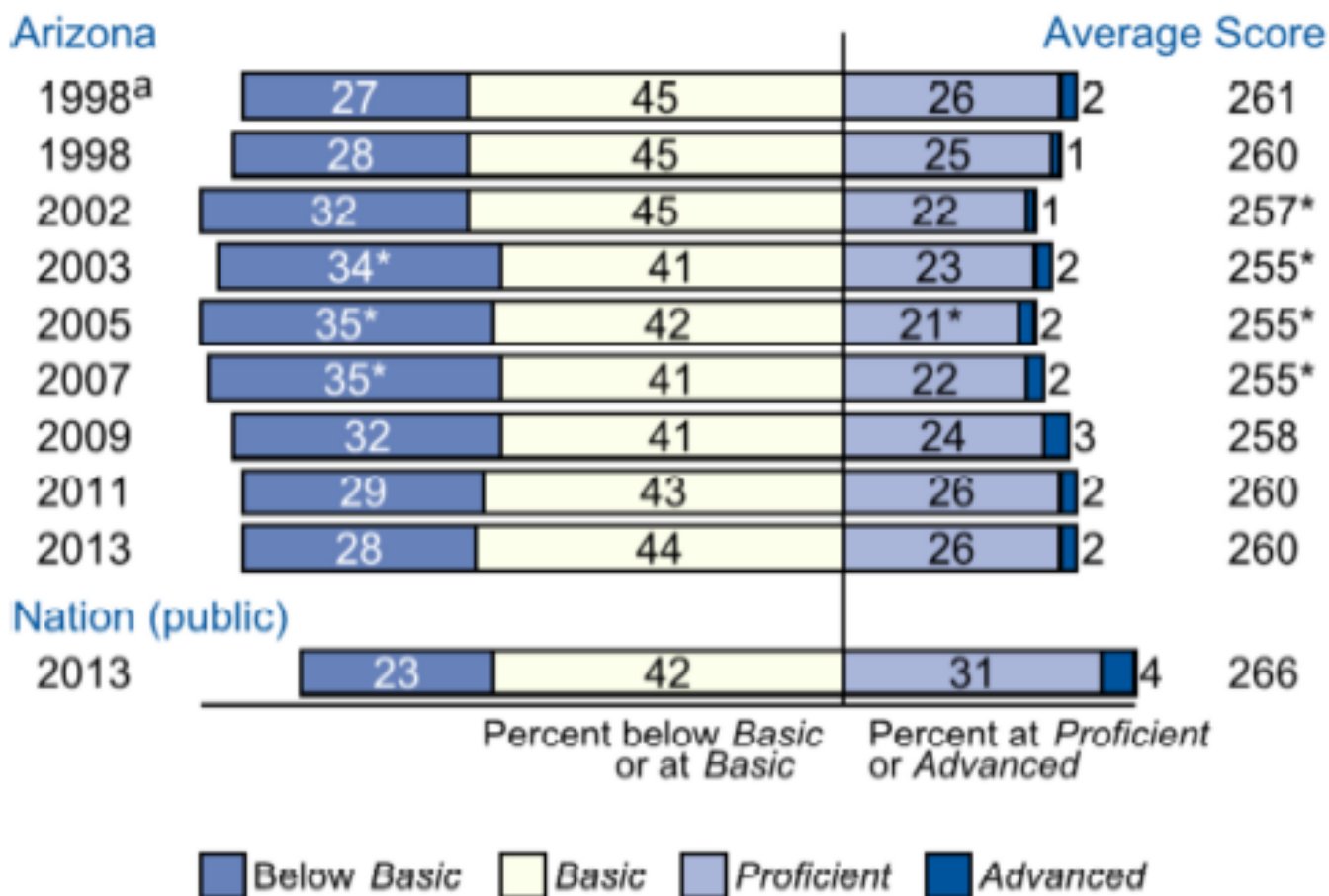
Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2013. Significance tests were performed using unrounded numbers.

8th Grade Achievement Levels

Achievement-Level Percentages and Average Score Results



* Significantly different ($p < .05$) from state's results in 2013. Significance tests were performed using unrounded numbers.

Explore the results on the new online report card



Thank you

If you would like any other information on NAEP please contact:

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Shelly.Pollnow@azed.gov